BEFORE THE
FEDERAL COMMUNICATIONS COMMISSION
WASHINGTON, D.C. 20554

In the Matter of	)	
	)	MB Docket No. 04-296
Review of the Emergency Alert System	)	

To: The Commission

COMMENTS FROM
COMLABS, INC. AND
MADE ON BEHALF OF
THE EM-NET STATE WARNING ALLIANCE

Comlabs, Inc. submits these comments in response to the Commission's Notice of Proposed Rulemaking ("NPRM") in the above-captioned proceeding. The Member States of the ***EM-net State Warning Alliance*** are: Delaware, the District of Columbia, Florida, Georgia, Illinois, Maryland, Massachusetts, North Carolina, Pennsylvania, Virginia and Washington State. The ***EM-net State Warning Alliance*** is the backbone of emergency messaging communication for the above-mentioned states, which represent 20% of the United States and is currently providing emergency warning protection for 104,000,000 Americans – over 33% of the country. In addition, the affiliated federal agencies using EM-net for emergency warnings are: the Federal Emergency Management Agency, Department of Homeland Security and the National Weather Service, National Oceanographic and Atmospheric Administration.

The Commission initiated this proceeding to examine how the Emergency Alert System ("EAS") might be improved to be a more effective mechanism for warnings.

Communications Laboratories, Inc. (Comlabs), founded in 1985, is a well-known and respected provider of highly specialized telecommunications equipment and warning systems. Our most recent product, EMnet - a satellite based warning and messaging system, was designed specifically to meet the needs of the Emergency Management community. It allows users to disseminate warnings and messages to individual stations or groups of stations simultaneously and instantaneously in a secure, redundant, and robust environment. EMnet has full EAS capabilities and is AMBER Alert compatible. Comlabs, also an established authority in the area of private line communication networks, provides consulting services as well as manufactured equipment to terminate these services, and builds terminals, bridging equipment, and diagnostic systems.

In 1991, the United States Department of Defense awarded Comlabs the contract to supply updated terminal equipment to the existing National Warning System (NAWAS), which has 2200 users, encompassing all 50 States. It is the primary communications network used by emergency management personnel to communicate with counties and local jurisdictions in the event of an emergency.

Nuclear power plants also use Comlabs equipment to provide notification and alerting of the surrounding communities should a nuclear emergency occur. To date, approximately 70% of all nuclear plants in the United States have purchased and installed our MCU terminal equipment. The National Weather Service utilizes our equipment to provide

weather warnings and alerts as well as forecast coordination, such as the National Hurricane Hotline.

The financial services market widely employs our equipment to provide instant and private communications between the major trading centers of the world and outlying branch offices, encompassing around 3000 remote sites.

In the late 1990's FEMA asked if Comlabs could develop a new messaging system that would provide for text messaging and use newer technologies. Comlabs developed the satellite based warning system EMnet, Emergency Management Network. EMnet is a hybrid system that uses multiple technologies to insure message delivery. Several layers of redundant communication paths are available to provide a robust delivery method for vital life saving information.

EMnet also has an EAS, Emergency Alert System, component that is currently in use by 11 states including the District of Columbia. EMnet/EAS delivers EAS messages to all connected sites within 45 seconds of transmission. EMnet/EAS also provides receipts from each remote station that let the originating agency know that the EAS message was received. Optionally EMnet/EAS also can provide verification that the EAS message was played.

EMnet now covers over 100 million people and in the near future will be protecting over 50% of the population.

Current EMnet users include:

Federal Emergency Management Agency

National Weather Service

Delaware State Emergency Management Agency

District of Columbia Emergency Management

Florida Office of Emergency Management

Georgia Emergency Management Agency

Illinois Emergency Management

- Including:
  - Illinois Terrorism Taskforce
  - Dupage County Illinois EMA
  - Kane County Illinois EMA
  - Grundy County Illinois EMA
  - Cook County Illinois EMA

Maryland Emergency Management Agency

- Including:
  - Clifton T. Perkins Hospital Center
  - Constellation Energy

Massachusetts Emergency Management Agency

North Carolina Emergency Management Agency

Pennsylvania Emergency Management

Virginia Emergency Management Agency

Washington State Emergency Division

As well as hundreds of radio and television stations in the above states. Comlabs works in close cooperation with the State Broadcaster Associations and its representatives who are members of the National Alliance of State Broadcaster Associations and members of the National Association of Broadcasters.

In the matter of Review of the Emergency Alert System EB Docket No. 04-296

(3) No comment

(4) Yes, EAS lacks fundamental engineering practices…it is unmanaged and open. It needs to be a managed, closed system. Hundreds of radio stations, with the support of state emergency management, and state broadcast associations, have enhanced their EAS interface with the addition of EMnet, a managed, closed system that allows emergency management to securely reach specific broadcast stations without having to involve broadcast stations higher on the chain, and their tens to hundreds of thousands of listeners.

EAS lacks proper security measures to prevent false activation, however with an embedded infrastructure 24,000 units the technology can be enhanced and improved to provide security and reliability of delivery. A proper enhancement will include reliable delivery with multiple levels of backup communication. It will be a fully managed, closed system.

(12) Yes. All broadcast facilities capable of reaching a significant (5%) or more of the general population should be EAS capable. More importantly, EAS needs to be able to effectively and efficiently interface with such services.

Transmission of EAS messages to pagers is currently under beta test by Comlabs and two paging companies in the Northeast. This allows properly authenticated messages only from emergency management officials to be transmitted over the paging system. Messages can be sent to the universe of pagers in the system and/or to a predetermined target group such as first responders, EMT or continuation of government officials.

(21) Yes Upgrading is taking place in the states of, Delaware, District of Columbia, Florida, Georgia, Illinois, Massachusetts, Maryland, North Carolina, Pennsylvania, Virginia and Washington by hundreds of broadcasters with the support of state broadcast associations. They have upgraded EAS with the implementation of EMnet, which allows emergency management to securely reach specific broadcast stations without having to involve broadcast stations higher on the chain, and their tens to hundreds of thousands of listeners.

(22 & 23) Should a single federal agency (DHS was suggested) take the lead role for the future of EAS?

Yes. A single government agency should be the gatekeeper for the EAS system. Other than an EAN the system is without any kind of management, standards or accountability other than the forfeitures' the FCC levy's against broadcasters.

Should the FCC, DHS, FEMA, and NOAA all remain involved in EAS

Yes. Although the above-mentioned agencies should be involved on the EAS system

only one agency should have control.

Should a new public/private partnership be created to help oversee alerting?
No. A public/private partnership has been tried and there hasn't been enough meaningful support from either the private or public side to make this concept viable. That being said government should solicit comments from the private sector on matters involving emergency messaging and warning systems.

(24) Should the FCC adopt rules to "require broadcasters to make their facilities available to local emergency managers?"
No comment

Or should there be incentives to encourage broadcasters and cable to participate?
No Comment

Under this scenario, to avoid overuse, "should there be a federal rule establishing a standard regarding when state emergency managers may or must activate EAS?"
No Comment

Should the use of any existing voluntary EAS codes now be mandated?
Yes. New codes are important to a national warning infrastructure. Using the wrong code for an event or incident may confuse people to what the actual warning is. For example in Texas during the Challenger incident the state EOC wanted to use the Child Abduction Emergency code to send the EAS message because the CAE system was the most developed. Imagine hearing that there is a child abduction emergency warning and hearing about space debris. What would you do?

There also needs to be a clean up of existing EAS codes…they are two-dimensional. Most, but not all EAS codes reference the type and severity of an event, however, some EAS codes give specific direction. In the event of a chemical spill, should the emergency manager issue a Chemical Spill EAS message, or a Shelter in Place message.

(25) Should the FCC require State and Local EAS Plans? (They are now not required)

YES But it should follow a yet to be developed set of guidelines. At this point there are 50 state plans that are, in some instances, the opposite of the plan of a joining state. For states that have many bordering neighbors, such as Missouri, there could be a great deal of confusion on activation of certain events from state to state.

Should the FCC establish national guidelines and standards.

NO, The FCC is in the business of regulating the airwaves and should not be involved in setting emergency message and warning policy. The national guidelines and standards should be formulated by those that are actually involved in that business on a day to day basis and has the expertise and authority to make, set and enforce the standards.

Should the SECC and LECC structure still be generating such Plans? If not, who?

YES, but only if they are following a uniform set of standards. The SECC should review and approve the LECC plans to make sure those plans work within the state or region.

Should periodic updating of Plans be required? If so, how often?

YES, plans should be reviewed as types of threats and technology changes. This decision

would be made at the highest level of the group or agency that manages the EAS system

Should adjacent states implement standardized EAS Plans for better coordination?
YES. This will help in cross-border or adjacent state warnings where an immediate threat is not vetted by the adjacent state because their standards aren't the same. A set of minimum national standards should be the guidelines for all state plans.

Should multi-state regions be defined and Plans developed for them?
YES. Due to the varying types of warning and threat levels regional plans make sense. However each plan should follow a national guidelines and standards.

Should there be reporting requirements for EAS activations to develop reports?
YES. A national reporting clearinghouse for EAS would give the responsible agency a wealth of the types of warnings, incidents and events that occur within a state or region. Comlabs EMnet has that mechanism built in. EMnet can record and track EAS events from 11 states and the District of Columbia. All EAS activations can be tracked by a central clearing house to determine the effective use or misuse of the EAS system.

(26) Should all EAS participants be required to monitor NWR signals where available?
No. While the NWR radio system is quite extensive it is not reliable for a number of reasons. First, many of the transmitter sites have no backup so if the only transmitter goes down then that area is not covered. Second, the communication paths to the transmitters are not reliable. Many NWR transmitter sites rely on landlines for their input. If the lines go down due to natural or manmade disaster then the site will not be able to transmit. Third. The NWR sites rely and the message to be relayed from a

national weather forecast office, which slows down the overall process.

Should broadcasters still be able to activate the EAS without local emergency management concurrence? If so, should the FCC establish standards for doing so?
NO. Only authenticated, verified sources should be able to activate the EAS system.

(27) How do we improve on the EAS "daisy-chain" distribution system?
Should satellite, or other new technologies, be used to distribute the EAS?
YES. Satellite delivery of EAS messages is already in use in more than 20% of the states that use EMnet. EMnet typically delivers EAS messages to all participating broadcast facilities within 45 seconds from the time it is transmitted. EMnet uses digital technology to transmit the messages and uses several layers of security to insure that only verified, authenticated messages are transmitted.

Is there still a need for the national 34-station PEP (Primary Entry Point) system?
NO, not if you have reliable satellite delivery to all participating broadcast facilities then the need for a select few to be the relay points is not required.

Should there be national guidelines for implementing EAS, rather than leaving it to the individual states?
YES, EAS guidelines and standards should be set from the responsible group or agency. The current state plans vary widely from region to region and even between adjacent states. This can cause confusion and in some instances warnings might be ignored.

(28) YES. New codes are important to a national warning infrastructure. Using the wrong code for an event or incident may confuse people to what the actual warning is.

For example in Texas during the Challenger incident the state EOC wanted to use the Child Abduction Emergency code to send the EAS message because the CAE system was the most developed. Imagine hearing that there is a child abduction emergency warning and hearing about space debris. What would you do?

(29 & 30) Should EAS be extended to DTV (HDTV), and digital cable TV?

YES

Should DTV be required to broadcast EAS on all program streams?

YES

Should AM/FM IBOC digital radio be required to carry EAS on all program streams?

YES

Should EAS be extended to DBS (DirecTV and Dish)? How would they get local alerts?

YES. Local alerts can be transmitted from the local authorities to the DBS (DirecTV and Dish) networks. Those networks can insert the messages into the data streams encoded in such a way as to activate the receivers in that local area. Similar technology is being used by Nextel for cellular phones.

Should Local alerts can be transmitted from the local authorities to the Satellite DARS (XM and Sirius) networks.

YES. Those networks can insert the messages into the data streams encoded in such a way as to activate the receivers registered to that local area. Similar technology is being used by Nextel for cellular phones. EAS should be extended to any service that reaches a

significant portion of the population. However, nothing should be pushed to these channels until the other EAS distribution challenges are resolved.

(32) No, but there should be a seamless integration between EAS and APAWS technologies. Those systems that want to participate in EAS may do so to provide for the public good.

(33) YES, and it already is. A standard for such data interexchange is required for an effective messaging system that will seamless interact and activate any APAWS technology.

(34) YES. Each device should be programmable for off/on and type of alert. Alternatively, each location should be required to have an EAS capable alerting appliance, just as homes and business are mandated to have smoke detectors.

(36-39)EAS needs to be able to activate any systems that are capable of reaching a significant portion of the public. These include text messages for the visually impaired and text to speech for visually impaired. The use of CAP (Common Alerting Protocol) will enable the activation of these other systems with a minimum of outside intervention. The EMnet system, currently in use by 11 states and the District of Columbia, uses digital technology for messaging and includes both voice and text messages as well as in interface to video character generators. Other enhancements to come are a text to speech interface that will take the digital text message directly to the visually disabled at their own terminal.

(40) Digital delivery of the EAS message allows text to speech and text-to-text

translations. The EMnet system, currently in use by 11 states and the District of Columbia, sends a text message that can be run through a translation program to generate alternate language audio. (i.e.: English text to Spanish audio)

(41) How can we improve the security of EAS distribution methods, information, and equipment?

Through the use of a managed closed network with encryption, levels of security, permission levels and security. The EMnet system, currently in use by 11 states and the District of Columbia, has these types of security built in and the system continually undergoes review and improvement.

Should the FCC require the use of password protection on all EAS encoders?

YES. The EMnet system, currently in use by 11 states and the District of Columbia, has password protection as well as levels of permissioning. This separates routine messaging and EAS messages from various ranks within an emergency management organization. The authenticity in a managed closed system is never in doubt. By definition it is coming from a verified, authenticated source. Password protection, levels of permissioning and overall security of the system insure that false messages have little chance of being sent. As far as incorrect messages are concerned that is a training issue at the issuing agency. Proper training on types of messages, use of the proper codes for those messages and operation of the system are key to making sure that incorrect messages are not sent.

(42) No Comment

(43) Testing should be done on a national scale of the national system. However the

PEP stations delivery mechanism should be done away with and replaced by reliable satellite system to at least all LP1 and LP2 stations. Testing can be done in such a manner as to not take the station off the air with verifications that each system is working. The EMnet system, currently in use by 11 states and the District of Columbia, has automatic receipting of EAS messages that are sent. For example if an EAS message in Pennsylvania is sent to 271 broadcast facilities the EMnet system will generate 271 receipts as each station reports back that the message arrived.

(44) Should additional training resources be provided to emergency

YES. Many states experience EAS failure because the local officials can't activate the system due to lack of training. In many instances EAS equipment that was supplied to emergency managers by broadcasters or other third parties has never been installed.

Should emergency managers receive mandatory training on how and when to utilize EAS?

YES. This should be part of national standards and guidelines.

Should there be periodic mandatory EAS training of broadcast and cable systems?

YES

(45) YES. Any distribution network that can reach a significant share of the population should have plans and capabilities in place to allow for the distribution of EAS through their network effectively and efficiently. This will bring the EAS message to more of the population.

(46) No

CONCLUSION

The American public has come to depend on broadcasters to disseminate timely and helpful emergency information. A backbone messaging system that includes rapid, redundant EAS capabilities already is in place in 11 states including the District of Columbia. Over 100 million people are covered by EMnet. Local television and radio stations that use EMnet for EAS message delivery have seen time after time that rapid, simultaneous delivery of EAS messages enhances safety and public warning. Comlabs and the EMnet State Warning Alliance urge the Commission to use its resources to encourage the full cooperation of, and funding by, the Federal, state and local governmental authorities to insure the highest levels of redundant, reliable emergency communications. However, the Commission should refrain from any "one-size-fits-all approach to achieving that goal. Based on the foregoing, Comlabs and the EMnet State Warning Alliance Associations respectfully request that the Commission to resolve the issues raised in this proceeding consistent with these Joint Comments.

Respectfully submitted,

COMLABS, INC. AND MADE ON BEHALF OF THE EMnet STATE WARNING ALLIANCE

By: _____

Dan Rau,

Director of State Relations

Comlabs, Inc.

91 Great Road

Shirley, MA 01464